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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,627	01/26/2004	Daniel E. Jenkins	16356.842 (DC-05833)	1696
27683 7590 11/26/2007 HAYNES AND BOONE, LLP 901 Main Street Suite 3100 Dallas, TX 75202			EXAMINER PARRIES, DRU M	
			ART UNIT 2836	PAPER NUMBER
			MAIL DATE 11/26/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/764,627

Applicant(s)

JENKINS, DANIEL E.

Examiner

Dru M. Parries

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-9,11-15,17-20 and 22-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-9,11-15,17-20 and 22-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed October 30, 2007 have been fully considered but they are not persuasive. Regarding the Gokhale reference, in paragraphs 0008 and 0009, he teaches the idea of how to make a non-linear inductor from magnetic material "by stacking the laminations to produce an air gap with two or more widths (meaning having infinite widths is a possible design choice); and adjusting the width of the air gap and the number of the laminations to produce a desired non-linear inductance characteristic for the inductor." Gokhale states the general concept of the idea and, therefore, it would be obvious to make an air gap with an infinitesimal number of different widths, for example, if that was to create an inductor with the desired characteristics that one of ordinary skill in the art wanted. So, contrary to what the Applicant asserts, impermissible hindsight was not used to come to that conclusion.

Regarding the argument that creating an air gap with an infinite amount of different widths is not equivalent to an air gap having non-parallel opposed surfaces, the Examiner would like to give an analogous example: take the number 0.9, if you keep adding a "9" to the right of the decimal point (i.e. 0.999999...), the number keeps getting closer and closer to "1"; however, if you add on an infinitesimal amount of 9's, the number equals 1 (i.e.  $0.\overline{9} = 1$ ). So, similar to the situation in Gokhale, if the air gap in Fig. 16 kept adding another width ( $g_N$ , smaller than  $g_{(N-1)}$  and to the right of it), one at a time, each surface would get closer and closer to a slanted line. However, by adding an infinite amount of different widths (i.e.  $g_1, g_2, g_3, \dots, g_\infty$ ) in decreasing width value, each surface would be a slanted line and subsequently the inductor would have an air gap having two non-parallel opposed surfaces slanting inward toward each other. Therefore, Gokhale teaches the idea of having an air gap with two non-parallel opposed

surfaces. Also, the Applicant's argument that the words "slanted" and "non-parallel" are not found in the Gokhale disclosure is irrelevant, as long as he inherently teaches those ideas, which he does, as explained above.

2. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the claimed invention is produced as explained above. Also, as stated in the previous Office Action, Gokhale's inductor is combined with Wittenbreder's invention because "it will reduce the percent total harmonic distortion in the line current." (Abstract of Gokhale) Also, Liu's information handling system is combined with Wittenbreder's invention to be the load in his system because "Wittenbreder was silent as to the load being powered and Liu teaches a load that needs power from a supply system." (Based on knowledge generally available to one of ordinary skill in the art)

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-9, 11-15, 17-20, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wittenbreder, Jr. (5,402,329), Gokhale et al. (2004/0046634), and Liu (2005/0078440). Wittenbreder teaches a zero voltage switching power supply system comprising an inductor (216), which stores energy and supplies energy to switches (206 and 212) to achieve zero voltage switching of the switches, which are arranged in a complementary switching configuration. (Abstract) He goes on to teach the switches being field effect transistors (Col. 25, lines 25-29). He also teaches supplying power to a generic load (226). Wittenbreder fails to teach an inductor whose inductance increases as current through the inductor decreases, nor does he teach shape of the core of the inductor, nor does he teach the supply system supplying power to an information handling system. Gokhale teaches an inductor having an E-I shaped or a C-shaped core with an air gap having two non-parallel opposed surfaces. He also teaches the inductor having an inductance that increases as current through the inductor decreases. (Abstract; [0038]; [0060]) Liu teaches an information handling system (a notebook computer) comprising a processor, a memory coupled to the processor, and a power input coupled to the processor and memory. It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute Gokhale's inductor in for Wittenbreder's generic one (216) since it will reduce the percent total harmonic distortion in the line current. It also would have been obvious to one of ordinary skill in the art at the time of the invention to supply power from Wittenbreder's power supply system to Liu's information handling system since Wittenbreder was silent as to the load being powered and Liu teaches a load that needs power from a supply system.

*Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dru M. Parries whose telephone number is (571) 272-8542. The examiner can normally be reached on M-Th from 9:00am to 6:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry, can be reached on 571-272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

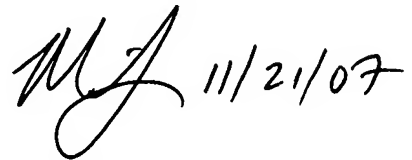
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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMP

11-12-2007

Handwritten signature of Michael Sherry, dated 11/21/07.

MICHAEL SHERRY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800